

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method of maintaining session affinity in a server farm coupled to receive client requests, said server farm comprising multiple server groups, each server group comprising multiple clone servers, said method comprising the steps of:

(1) associating a collection of related client requests with a unique session identification code;

(2) responsive to receipt of a client request, determining to which of said server groups said client request can be dispatched;

(3) associating with said collection of requests sharing a session identification code a list of every server in said server farm that has serviced a request in said collection;

(4) responsive to said receipt of a client request, determining if said list associated with said collection of requests to which said request belongs includes a server identification code that matches a server identification code of a server in said determined server group; and

(5) if a match is detected, dispatching said client request to said matched server.

2. (currently amended): The method of claim 1 wherein step (3) comprises, upon routing of a client request in a session to a server that has not previously serviced a client request in said session, adding a unique server identification code corresponding to said server to a list of server identification codes associated with said session, without deleting any other server identification codes in said list;

3. (currently amended): The method of claim 2 wherein steps (1) and (3) comprise sending said session identification code and said ~~clone~~ unique server identification code, respectively, to a client machine that issued said request so that said client machine can include

said session identification code and said ~~elone~~ unique server identification code as part of future requests it issues to said server farm.

4. (original): The method of claim 3 wherein said list of server identification codes forms part of said session identification code.

5. (original): The method of claim 4 wherein said list of server identification codes is appended to said session identification code.

6. (original): The method of claim 5 wherein said session identification code is a jsessionid in accordance with the Java Servlet 2.2 specification.

7. (original): The method of claim 5 wherein said session identification code forms part of a cookie associated with said session.

8. (original): The method of claim 7 wherein said cookie forms part of said client request.

9. (original): The method of claim 5 wherein said session identification code forms part of a Uniform Resource Identifier (URI) that forms part of said client request.

10. (original): The method of claim 4 wherein step (4) comprises the steps of:
(4.1) parsing said list in a manner so as to find matching server identification codes in the temporal order in which they were added to said list; and
(4.2) selecting the first matching server identification code detected.

11. (currently amended): The method of claim 1 wherein step (4) comprises the steps of:
(4.1) searching said list in a predetermined order for matching server identification code, said predetermined order designed to encounter server identification codes in the temporal order in which they were added to said list;

(4.2) upon encountering a server identification code, determining if it matches a server identification code in said server group; and

(4.3) if a match is not detected, repeating steps (4.1) ~~(3.1)~~ and (4.2) ~~(3.2)~~.

12. (original): The method of claim 4 wherein step (3) comprises the steps of:
if said client request does not comprise a session identification code;

(3.1) creating a session for client requests received from the client issuing said client request;

(3.2) assigning a session identification code to said session;

(3.3) dispatching said client request to a particular server in said determined server group;

(3.4) appending the server identification code of said particular server to said session identification code; and

(3.5) communicating said session identification code with said server identification code to the client that issued said client request.

13. (original): The method of claim 12 wherein step (3) further comprises the steps of:
when a client request is received that pertains to a particular server group and said client request comprises a session identification code, but said session identification code does not have appended thereto a server identification code corresponding to a server in said particular server group;

(3.6) dispatching said client request to a server in said particular server group;

(3.7) appending said server identification code corresponding to said server to said session identification code; and

(3.8) communicating said session identification code, including said newly appended server identification code, to the client that issued said client request.

14. (original): The method of claim 13 wherein step (2) further comprises the steps of:

if a client request comprises a session identification code having appended thereto a server identification code corresponding to a particular server in said determined server group, but said particular server is unavailable to service said client request;

(3.9) dispatching said client request to a different server in said determined server group;

(3.10) appending a server identification code corresponding to said different server to said session identification code; and

(3.11) communicating said session identification code, including said newly appended server identification code, to the client that issued said client request.

15. (original): The method of claim 5 wherein step (3) further comprises the steps of:
if a client request comprises a session identification code having appended thereto a server identification code corresponding to a particular server in said determined server group, but said particular server is unavailable to service said client request;

(3.9) dispatching said client request to a different server in said determined server group;

(3.10) appending a server identification code corresponding to said different server to said session identification code; and

(3.11) communicating said session identification code, including said newly appended server identification code, to the client that issued said client request.

16. (currently amended): A computer readable product embodied on computer readable media readable by a computing device, said product for maintaining session affinity in a server farm coupled to receive client requests, said server farm comprising multiple server groups, each server group comprising multiple server clones, said computer program product comprising computer executable instructions for:

associating a collection of related client requests with a unique session identification code;

responsive to receipt of a client request, determining to which of said server groups said client request can be dispatched;

associating with said collection of requests sharing a session identification code a list of every server in said server farm that has serviced a request in said collection;

responsive to said receipt of a client request, determining if said list associated with said collection of requests to which said request belongs includes a server identification code that matches a server identification code of a server in said determined server group; and
if a match is detected, dispatching said client request to said matched server.

17. (currently amended): The method of claim 16 wherein said computer executable instructions for associating said list with said collection of requests comprises, upon routing of a client request in a session to a server that has not previously serviced a client request in said session, adding a unique server identification code corresponding to said server to a list of server identification codes associated with said session, without deleting any other server identification codes in said list;

18. (currently amended): The method of claim 17 wherein said computer executable instructions for associating a collection of related client requests with a unique session identification code and said computer executable instructions for associating said list with said collection of requests comprise sending said session identification code and said ~~elone~~ unique server identification code, respectively, to a client machine that issued said request so that said client machine can include said session identification code and said ~~elone~~ unique server identification code as part of future requests it issues to said server farm.

19. (original): The computer readable product of claim 18 wherein said list of server identification codes forms part of said session identification code.

20. (original): The computer readable product of claim 19 wherein said list of server identification codes is appended to said session identification code.

21. (original): The computer readable product of claim 19 wherein said session identification code is a jsessionid in accordance with the Java Servlet 2.2 specification.

22. (original): The computer readable product of claim 19 wherein said session identification code forms part of a cookie associated with said session.

23. (original): The computer readable product of claim 22 wherein said cookie forms part of said client request.

24. (original): The computer readable product of claim 19 wherein said session identification code forms part of a Uniform Resource Identifier (URI) that forms part of said client request.

25. (original): The computer readable product of claim 18 wherein said computer executable instructions for determining if said list associated with said collection of requests to which said request belongs includes a server identification code that matches a server identification code of a server in said determined server group comprises computer executable instructions for:

parsing said list in a manner so as to find matching server identification codes in the temporal order in which they were added to said list; and
selecting the first matching server identification code detected.

26. (original): The computer readable product of claim 18 wherein said computer executable instructions for determining if said list includes a server identification code that matches a server identification code of a server in said determined server group comprises computer executable instructions for:

searching said list in a predetermined order for matching server identification code, said predetermined order designed to encounter server identification codes in the temporal order in which they were added to said list;

upon encountering a server identification code, determining if it matches a server identification code in said server group; and

if a match is not detected, re-executing the searching and determining instructions.

27. (original): The computer readable product of claim 19 wherein said computer executable instructions for adding a unique server identification code comprises computer executable instructions for:

- if said client request does not comprise a session identification code;
 - creating a session for client requests received from the client issuing said client request;
 - assigning a session identification code to said session;
 - dispatching said client request to a particular server in said determined server group;
 - appending the server identification code of said particular server to said session identification code; and
 - communicating said session identification code including said server identification code, to the client that issued said client request.

28. (original): The computer readable product of claim 27 wherein said computer executable instructions for adding a unique server identification code further comprises computer executable instructions for:

- when a client request is received that pertains to a particular server group and said client request comprises a session identification code, but said session identification code does not have appended thereto a server identification code corresponding to a server in said particular server group;
 - dispatching said client request to a server in said particular server group;
 - appending said server identification code corresponding to said assigned server to said session identification code; and
 - communicating said session identification code, including said newly appended server identification code, to the client that issued said client request.

29. (original): The computer readable product of claim 28 wherein said computer executable instructions for adding a unique server identification code comprises computer executable instructions for:

if a client request comprises a session identification code having appended thereto a server identification code corresponding to a particular server in said determined server group, but said particular server is unavailable to service said client request;

dispatching said client request to a different server in said determined server group;

appending a server identification code corresponding to said different server to said session identification code; and

communicating said session identification code, including said newly appended server identification code, to the client that issued said client request.